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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Vir V. Phoha

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EXAMINER

CHOJNACKI, MELLISSA M

ART UNIT

PAPER NUMBER

2164

DATE MAILED: 08/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/073,453

Applicant(s)

PHOHA ET AL.

Examiner

Mellissa M. Chojnacki

Art Unit

2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) ~~4-8~~ is/are ~~allowed~~.
- 6) ☒ Claim(s) 1-3 and 9-15 is/are rejected.
- 7) ☒ Claim(s) 4-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. In response to the Appeal Brief filed on May 30, 2006, no claims have been cancelled; claims 10-11 have been amended, and no new claims have been added. Therefore, claims 1-15 are still presently pending in the application.

Allowable Subject Matter

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2. Claims 4-8 are allowed, *IF PLACED IN INDEPENDENT FORM.*

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3 and 9-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Sullivan et al. (U.S. Patent No. 6,792,412).

As to claim 1, Sullivan et al. teaches a system having a plurality of computers each having data sets stored thereon, a method of assigning a computer to service a request for a data set (See abstract; column 2, lines 35-43), the method comprising the steps of:

(a) providing a neural network having at least an input layer having J input nodes and an output layer having K output nodes, each of the output nodes associated with one of the computers, and associated weights $w(j,k)$ between each the input node and each the output node (See column 4, lines 20-45; column 5, lines 4-26; column 6, lines 52-67);

(b) receiving a request for particular data set I (See abstract; column 2, lines 35-43);

(c) inputting to the input layer an input vector having an entry $R(I)$ at input node I, the entry $R(I)$ being dependent upon the number of requests for the requested data over a predetermined period of time (See column 4, lines 20-45; column 5, lines 4-26, lines 34-39; column 6, lines 34-46); and

(d) selecting a computer assignment associated with a selected one of the output nodes to service the data request, where the selected output node is associated with a specific weight (See column 4, lines 20-45; column 5, lines 4-26, lines 34-39; column 6, lines 52-60), the specific weight selected to minimize a predetermined metric measuring the distance between the vector entry $R(I)$ and the weights $w(I,k)$ associated with the input node I and the output nodes (See column 4, lines 20-45; column 5, lines 4-26, lines 34-39; column 6, lines 52-60).

As to claim 2, Sullivan et al. teaches where the method further includes the step of updating the specific weight (See column 7, lines 23-34; column 8, lines 12-34).

As to claim 3, Sullivan et al. teaches where the step of updating the specific weight includes modifying the specific weight with a factor dependent the metric distance between the vector entry $R(I)$ and the specific weight (See column 7, lines 23-34; column 8, lines 12-34).

As to claim 9, Sullivan et al. teaches where the input vector's components, other than the component $R(I)$ associated with the input node I , are of value zero (See column 6, lines 52-67).

As to claim 10, Sullivan et al. teaches in a web farm of servers, a method of selecting a server to service a user request for a data set (See abstract; column 2, lines 35-43), comprising the steps of:

(a) providing a neural network having at least an input layer having J input nodes and an output layer having K output nodes, each of the output nodes associated with one of the servers, and associated weights $w(j,k)$ between each the input node and each the output node (See column 4, lines 20-45; column 5, lines 4-26; column 6, lines 52-67);

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(b) receiving a request for particular data set I (See abstract; column 2, lines 35-43);

(c) imputing to the input layer an input vector having an entry $R(I)$ at input node I, the entry $R(I)$ being dependent upon the number of requests for the requested data over a predetermined period of time (See column 4, lines 20-45; column 5, lines 4-26, lines 34-39; column 6, lines 34-46); and

(d) selecting a server assignment associated with of one of the output nodes to service the data request, where the output node is associated with a specific weight (See column 4, lines 20-45; column 5, lines 4-26, lines 34-39; column 6, lines 52-60), the specific weight selected to minimize a predetermined metric measuring the distance between the vector entry $R(I)$ and the weights(I,k) associated with the input node I and the output nodes (See column 4, lines 20-45; column 5, lines 4-26, lines 34-39; column 6, lines 52-60).

As to claim 11, Sullivan et al. teaches where the method is implemented on at least one server in the web farm (See abstract; column 2, lines 15-28; column 3, lines 30-67 and column 4, lines 1-3).

As to claim 12, Sullivan et al. teaches where the method is implemented on at least one router in the web farm (See abstract; column 2, lines 15-28; column 3, lines 30-67 and column 4, lines 1-3).

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As to claim 13, Sullivan et al. teaches comprising the step of transmitting the request to the server associated with the server assignment (See column 4, lines 20-45; column 5, lines 4-26, lines 34-39; column 6, lines 52-60).

As to claim 14, Sullivan et al. teaches a computer readable storage medium containing computer executable code for performing a method of assigning a computer from a set of computers to service a request for a data set, the method (See abstract; column 2, lines 35-43), comprising the steps of:

(a) associating for each data set l a series of weights $w(l,j)$, where $j=1$, number of computers in the set of computers, associating with each individual weight $w(l,j)$ one of the computers from the set of computers (See column 4, lines 20-45; column 5, lines 4-26; column 6, lines 52-67);

(b) receiving a request for particular data set l (See abstract; column 2, lines 35-43);

(c) associating with the requested data set a value $R(l)$ being dependent upon the number of requests for the requested data set over a predetermined period of time (See column 4, lines 20-45; column 5, lines 4-26, lines 34-39; column 6, lines 34-46); and

(d) selecting a computer assignment associated with a specific one of the series of weights $w(l,j)$ to service the data request, where the specific weight is selected to minimize a predetermined metric measuring the distance between the value $R(l)$ and the weights $w(l,k)$ associated with the particular data set l (See column 4, lines 20-45; column 5, lines 4-26, lines 34-39; column 6, lines 52-60).

As to claim 15, Sullivan et al. teaches a computer readable storage medium containing computer executable code for performing a method of assigning a computer for a set of computers to service a request for a data set (See abstract; column 2, lines 35-43), comprising the steps of:

(a) providing a neural network having at least an input layer having J input nodes and an output layer having K output nodes, each of the output nodes associated with one of the computers, and associated weights $w(j,k)$ between each the input node and each the output node (See column 4, lines 20-45; column 5, lines 4-26; column 6, lines 52-67);

(b) receiving a request for particular data set I (See abstract; column 2, lines 35-43);

(c) and imputing to the input layer an input vector having an entry $R(I)$ at input node I, the entry $R(I)$ being dependent upon the number of requests for the requested data over a predetermined period of time (See column 4, lines 20-45; column 5, lines 4-26, lines 34-39; column 6, lines 34-46); and

(d) selecting a computer assignment associated with of one of the output nodes to revise the data request, where the output node is associated with a specific weight (See column 4, lines 20-45; column 5, lines 4-26, lines 34-39; column 6, lines 52-60), the 1 specific weight selected to minimize a predetermined metric measuring the distance between the vector entry $R(I)$ and the weights $w(I,k)$ associated with the input

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node I and the output nodes (See column 4, lines 20-45; column 5, lines 4-26, lines 34-39; column 6, lines 52-60).

Response to Arguments

5. Applicant's arguments filed on 30-May -2006, with respect to the rejected claims 1-15 have been fully considered but they are not found to be persuasive:

In response to applicants' arguments regarding "Sullivan does not compare the output of each output node to that of other output nodes to determine which information recipient is better suited to receive certain information" the arguments have been fully considered but are not found to be persuasive, because the claim language within the independent claims do not mention or even disclose the word "compare". There is no comparison of output nodes within claim language. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicants' arguments regarding "Sullivan does not disclose or discuss the use of competitive learning algorithms like those disclosed in the applicant's invention" the arguments have been fully considered but are not found to be moot, because again the claim language does not suggest or disclose what "competitive learning algorithms" are and whether they are written within the claims.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mellissa M. Chojnacki whose telephone number is (571) 272-4076. The examiner can normally be reached on 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

August 10, 2006
Mmc



SAM RIMELL
PRIMARY EXAMINER